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## **Supporting Information**

H<sub>2</sub>O<sub>2</sub>-responsive Microcapsules Assembly from Turkish Galls

for Ulcerative Colitis Therapy

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## Authors' contribution

All authors have contributed extensively to the work presented in this paper. Bo Han designed the experiments, Yonghao Liu and Jie Zang conducted the experiments, analyzed the data, prepared the figures and wrote up the manuscript. Rui Xue and Xuetao Liu helped with the data analysis. Mengying Lv and Yuting Hu reviewed the manuscript. Wei Yu and Xinjun Wang helped with the laboratory technique. The manuscript has been reviewed and approved by all authors.

## **Supporting Information**

Table S1 DAI scores
Fig. S1 GTA-Fe<sup>III</sup> MCPs were observed under microscope over 15 days
Fig. S2.SEM image of GTA-Fe<sup>III</sup> MCPs were incubated with the *E. coli* for 24 hours.
Fig. S3. The mass spectrum information of GTA.
Fig. S4. Mass spectrometry information of components in intestinal juice and serum.
Figure S5. The disassembly of GTA-Fe<sup>III</sup> MCPs in different concentrations of H<sub>2</sub>O<sub>2</sub> solution
Figure S6. SEM image of GTA-Fe<sup>III</sup> MCPs in 100mM H<sub>2</sub>O<sub>2</sub> solution after 120 minutes

Table S1 DAI scores			
Score	Weight loss	Stool consistency	Blood
0	None	Well-formed pellets	Normal
1	1~5%	Some soft	Slight bleeding
2	5~10%	Soft	Certain bleeding
3	10~20%	Unformed or mild diarrhea	Mid bleeding
4	>20%	Severe watery diarrhea	Gross bleeding



Fig. S1 GTA-Fe<sup>III</sup> MCPs were observed under microscope over 15 days

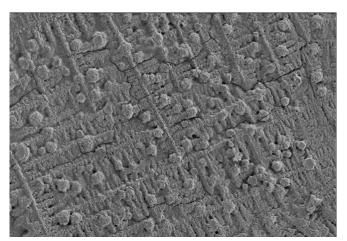


Fig. S2.SEM image of GTA-Fe $^{\rm III}$  MCPs were incubated with the E. coli for 24 hours.

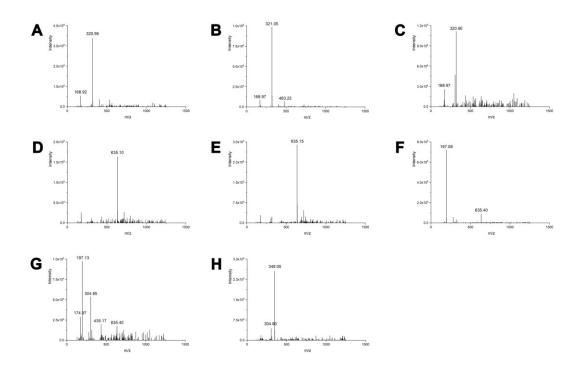


Fig. S3. The mass spectrum information of GTA. Figures A to H correspond to peaks 1 to 8 in Figure 4.

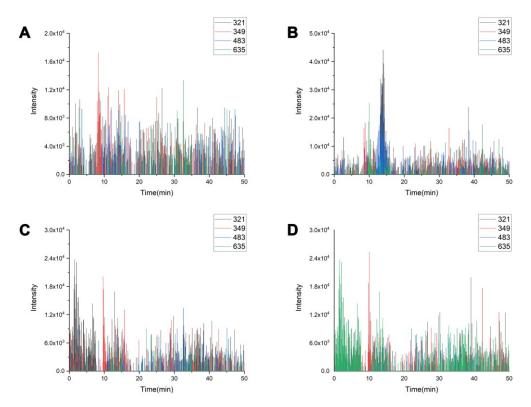


Fig. S4. Mass spectrometry information of components in intestinal juice and serum.(A) Peaks were extracted from the intestinal fluid of healthy mice after enema. (B) Peaks were extracted from the intestinal fluid in UC mice after enema administration. (C) Peaks were extracted from the serum components in healthy mice after enema administration. (D)

Peaks were extracted from the serum components in UC mice after enema administration.

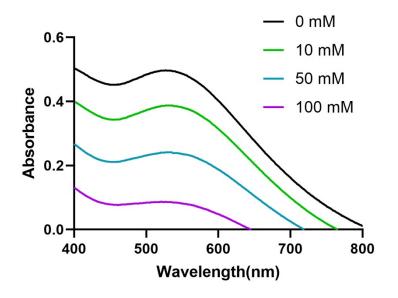


Figure S5. The disassembly of GTA-Fe<sup>III</sup> MCPs in different concentrations of H<sub>2</sub>O<sub>2</sub> solution

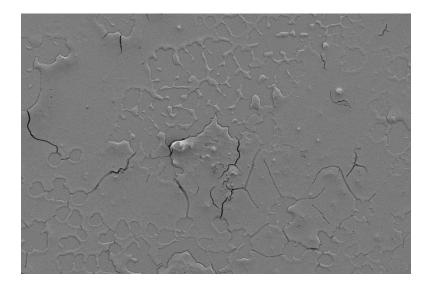


Figure S6. SEM image of GTA-Fe<sup>III</sup> MCPs in 100mM H<sub>2</sub>O<sub>2</sub> solution after 120 minutes